

City of Cambridge

Commission for Persons with Disabilities

51 Inman Street · Cambridge, MA · 02139-1732

617-349-4692 voice · Relay via 711 · 617-349-4766 fax



Avril dePagter
Chair

Mary Devlin
Secretary

Loring Brinckerhoff
Jerry Friedman
Keisha Greaves
Valerie Hammond
Nicole Horton-Stimpson
Danielle Jones-McLaughlin
Deepti Nijhawan
Daniel Stubbs

Rachel Tanenhaus
Executive Director/
ADA Coordinator

Kate Thurman
Project Coordinator

The Cambridge Commission for Persons with Disabilities is holding an abbreviated meeting online via Zoom on Thursday, November 9, 2023 from 5:30 – 7:00 PM

PLEASE MAKE EVERY EFFORT TO JOIN BY 5:30 PM

AGENDA

Please keep your microphone muted when you are not speaking

- | | | |
|---|---------|--------------------|
| 1. Introductions | 2 min. | |
| <i>If needed, alternates named</i> | | |
| 2. Announcements | 2 min. | CCPD staff / Board |
| 3. Approval of October Minutes | 2 min. | CCPD Board |
| <i>See page 4 of this agenda packet</i> | | |
| 4. Presentation on Updated Five-Year Street and Sidewalk Reconstruction Plan | 50 min. | Public Works Staff |
| <i>See page 8 of this agenda packet</i> | | |
| 5. Chair's Report | 20 min. | Avril dePagter |
| <i>Working Group Updates, if any</i> | | |
| 6. Staff Report | 10 min. | Rachel Tanenhaus |
| 7. Public Input | 3 min. | general public |
| <i>See pages 2&3 of this agenda packet for instructions on providing public comment</i> | | |

CART/closed captioning will be provided for this meeting

Captions can be turned on within the Zoom platform. Additionally, you may stream CART in a separate URL at

<https://www.streamtext.net/player?event=CCPDmeeting>

(captions will not appear until the meeting has started)

The City of Cambridge Commission for Persons with Disabilities, does not discriminate, including on the basis of disability. The Commission for Persons with Disabilities will provide auxiliary aids and services, written materials in alternative formats, and reasonable modifications in policies and procedures to persons with disabilities upon request.

The next CCPD meeting will be held on Thursday, December 14 from 5:30-7:00 PM

Members of the public: See instructions on pages 2 & 3 on how to watch the CCPD meeting and provide public comment via Zoom

Instructions for Joining the November 9, 2023 CCPD Meeting as a Member of the Public

Join Online:

Registration is required in order to view the meeting or to participate in public comment.

Register online at

https://cambridgema.zoom.us/webinar/register/WN_OH5XUUzVSdevxc63LV0Law

After registering, you will receive a confirmation email containing information about joining the webinar. For more information regarding Zoom technology visit:

<https://www.cambridgema.gov/Departments/citycouncil/zoomonlinemeetinginstructions>

Join by Phone:

If you do not have access to the internet, you may also call into the meeting using a phone by dialing any of the following numbers and entering the Webinar ID (registration is not required). For higher quality, dial a number based on your current location:

+1 309 205 3325

+1 312 626 6799

+1 646 931 3860

+1 929 436 2866

+1 301 715 8592

+1 669 900 6833

+1 719 359 4580

+1 253 215 8782

+1 346 248 7799

+1 386 347 5053

+1 564 217 2000

+1 669 444 9171

When prompted, enter the webinar ID: **837 9693 3748**

NOTE: your microphone will be automatically muted until you are called on to speak during the public comment period of the meeting. See instructions on the following page for how to “raise your hand” in order to indicate that you would like to speak during the public comment period on the agenda.

Instructions for Providing Public Comment During CCPD Meetings via Zoom

Anyone wishing to address the Cambridge Commission for Persons with Disabilities (CCPD) during the Public Comment section of the agenda may indicate that by "raising their hand" virtually within the Zoom platform. The host (CCPD staff) will call on members of the public to speak in the order in which their hands were raised. Please note that while you may raise your hand at any point during the meeting, you will not be called on to speak until the Public Comment period of the meeting.

To raise your hand:

- On a Mac or PC:
 - Click "raise hand" in the webinar control panel
 - Alternatively, you may use the keyboard shortcut to raise and lower your hand:
 - Windows: press "Alt+Y"
 - Mac: press "Option+Y"
 - When you are called on by the host to speak, you will be prompted to unmute your microphone (you must unmute yourself, as the host does not have the ability to unmute individuals).
 - After you have spoken or once your 3 minutes are up, your microphone will be muted by the host
- If you are calling in by phone:
 - Press *9 to raise and lower your hand
 - When you are called on to speak during the public comment period, you will need to press *6 to unmute yourself (press it again to mute yourself)
 - Note: your phone number will be visible to only the host of the meeting (CCPD staff). Because your name will not be displayed, we will call on you when it's your turn to comment by using the last four (4) numbers of your phone number to identify you. For example, "The person calling in from the number ending in ####, you may now provide public comment."
 - After you have spoken or once your 3 minutes are up, your microphone will be muted by the host

Once they have the floor, members of the public are asked to identify themselves, and each speaker is limited to not more than three (3) minutes. Although the public comments should, whenever possible, address one or more items on the agenda for that particular meeting, if time permits, the Chair may allow a speaker to comment on matters that may not directly address an item on the agenda, but do concern the Commission.

Thank you for your patience as we work together to make virtual meetings accessible for everyone!

Draft

Cambridge Commission for Persons with Disabilities (CCPD)

Minutes for Thursday, October 26, 2023 CCPD Meeting

Online via Zoom

Meeting was called to order at 5:34 PM

Present:

Members: Avril dePagter (Chair), Mary Devlin (Secretary), Keisha Greaves, Nicole Horton-Stimpson, Danielle Jones-McLaughlin, Melissa Miguel, and Dan Stubbs

Absent: Loring Brinckerhoff, Valerie Hammond, and Deepti Nijhawan

Staff: Kate Thurman

Announcements:

- Kate announced that Robert has resigned from the CCPD advisory board, as he feels that he has too much going on to provide the level of commitment he'd like.
- She also said that Valerie's second term expires in December, so there will be a call for applicants soon.

Minutes

- A motion to approve the September 14 minutes was seconded and passed unanimously.

Chair's Report:

- Avril reported attending an Arts in the Park event recently at Morgan Park. She said the Department of Public Works (DPW) held an informational table on nearby projects and that it could be a good opportunity for CCPD to do some outreach to the community.
 - Melissa noted that the Arts in the Park events are organized by Kristen Kelleher, DPW's Community Relations Manager.
 - CCPD staff will contact Kristen about the possibility of holding an informational table at future events.
- Avril asked members for feedback on the City Council Candidate Forum hosted by the Cambridge Economic Opportunity Committee (CEOC), as she was unable to attend.
 - Danielle attended and felt that it was an informative, positive experience. She really appreciated having the opportunity to provide CEOC with input ahead of time on making the event inclusive of people with disabilities.
 - Danielle also mentioned that she is a Participatory Budgeting (PB) delegate this year and will be attending the speed consulting session on November 1, where PB delegates have the opportunity to meet with representatives from various City departments to ask questions about the feasibility of proposed projects. Kate added that either she or Rachel attend the speed consulting events to answer questions about accessibility and that it's one of her favorite events of the year.
 - Kate noted that CEOC had to move the forum from a hybrid event to in-person only with very little notice because CCTV informed them that their equipment could not interface with Zoom. Hopefully this will be worked out in the future to allow more residents to participate.
- Avril asked if members had any interest in moving to hybrid meetings.
- Is there any interest in moving to hybrid meetings?
 - Many members feel that there is a value to meeting in person and are very interested in returning to in-person.

- Kate noted that meetings are unlikely to ever be in-person only again, but rather hybrid meetings to make them more accessible to people with disabilities. Kate will ask about the new equipment that has been installed in the second-floor conference room of 51 Inman St. It was noted that it's really important to have the right technology for facilitating hybrid meetings. One example that was given was the Owl Labs Meeting Camera that sits on the table and automatically adjusts to focus on the person speaking. Kate will find out what is currently available and whether we may need additional technology to make the meetings accessible.

Working Group Updates:

- Mary and Dan are working to update the language in and propose changes to the CCPD bylaws. They will have more of an update at the November meeting.
- Other working groups have not had the time to meet and will report back at the November meeting with any updates.

Public Works Update:

Melissa Miguel, Supervising Engineer in DPW who is CCPD's new DPW liaison reported the following:

- She oversees the Chapter 90 program, which is state funding for complete streets projects. This work includes upgraded drainage and pedestrian safety projects. She also manages the college and high school co-ops at DPW
- The end of the construction season is approaching.
 - Friday, November 3: Last day for final roadway top course paving.
 - Monday, November 13: Last day for concrete sidewalk placement, although this could get extended depending on the weather.
 - Monday, November 27: Winter moratorium begins, meaning:
 - No excavations in the public way (outside of an emergency) can take place during the winter moratorium.
 - The DPW Commissioner determines when the moratorium will be lifted next year.
 - City Contractors may continue to work as weather permits on pieces of their projects that do not include concrete sidewalk placement or asphalt roadway paving. However, asphalt patches can be done as necessary temperatures warm up enough to allow for more permanent fixes.
- On Saturday, October 14th, there was a ribbon cutting for the Inman Square Revitalization and Reconstruction Project.
- Final paving schedule:
 - Huron Avenue – Aberdeen Avenue to the Golf Course (including new separated bike lane) will be done Friday, Oct 27th – Mon Oct 30th.
 - Park Avenue – Huron Avenue to Holworthy St. will be done Friday, Oct 27th – Mon Oct 30th.
 - Tuesday, Oct 31st is Halloween, and the contractor has been told that if paving needs to extend to Tuesday that they must wrap up early. Additionally, there will be no work done on Sunday, October 29.
 - Belmont Street (including Holworthy St connection of the new Watertown Greenway) will be done Wednesday, Nov. 1 – Friday, Nov. 3. Belmont Street has improved pedestrian crossings and signals.

Staff Report:

Kate reported the following:

- City Manager Yi-An Huang held a virtual meet & greet with the disability community on Tuesday, September 26. 10 community members attended, including Keisha and Deepti.
 - Keisha spoke about the need for affordable housing for people with disabilities. She would like to see the City building a housing complex for younger people with disabilities that includes amenities such as a

physical therapy gym and indoor pool, with onsite staff that would provide PCA services and mental health treatment.

- Keisha said she submitted a PB proposal for such a housing complex.
- The Massachusetts Architectural Access Board (MAAB) held a virtual hearing on Monday, October 16 on a variance application filed by the owners of 747 Cambridge Street, a newly constructed, 3-story, 6-unit condo building with commercial space on the first floor. This building was designed without an elevator, which is required by the state accessibility building codes (521 CMR, which is enforced by MAAB). The owners were requesting a variance for having designed and constructed the building without vertical access. Kate provided the following timeline of the project:
 - September 2021: the Inspectional Services Department (ISD) informed the builders that they would be required to either add an elevator to bring the building into compliance or get a variance from the MAAB.
 - October 2021: Ellen Semonoff received a copy of their variance application and forwarded it to Rachel. Kate explained that the MAAB requires applicants to copy the local ISD, disabilities commission, and independent living center (Boston Center for Independent Living, BCIL, covers Cambridge) on their applications. Kate and Rachel discussed the variance application and agreed that CCPD would oppose it given that it's brand-new construction and doesn't meet the MAAB's threshold for granting variances. Rachel kept checking the hearing schedule to see when the application would go before the board.
 - Variances are granted for one of 2 reasons:
 - Bringing a building into full compliance is technically infeasible, or
 - Full compliance comes at a significant cost without substantial benefit to the disability community
 - As brand new, multi-million dollar construction, the applicants didn't meet either threshold.
 - November 2021: The application had not been included on any of the agendas, so Rachel contacted the MAAB to ask when the case would be heard and was told they had no record of it. The MAAB told her that meant that they had either never received the application or that the application had been revoked after its submission. At that point, Rachel emailed the architect who submitted the application to let them know the MAAB had no record of it and to ask if they had withdrawn it. She also offered to provide free technical assistance. The architect replied that they had not withdrawn their application and that he would look into it.
 - Meanwhile, ISD issued a building permit with the understanding that they would need a variance for the lack of elevator. ISD documented several conversations they had with the builders about their responsibility for either bringing the building into compliance or getting a variance. Kate noted that the department was in between Access Analysts when this building permit application was being reviewed.
 - June 2022: an engineer working on the project emailed Rachel to ask about the status of their variance application, including the previous email conversation with the architect. Rachel responded that she doesn't work for the MAAB and referred him there.
 - August 2022: the architect responded to Rachel's email asking how to file an MAAB variance. Rachel referred him to the MAAB's guide on filing variance applications, which is posted to their website, and again offered technical assistance.
 - April 25, 2023: the building owner signed a new variance application, which indicated that construction has been completed and submitted it to the MAAB. As ISD had communicated before construction commenced, they will not issue a certificate of occupancy (COO) until either the MAAB grants the variance or the building is brought into compliance.
 - Both Rachel and BCIL submitted letters of opposition.
 - October 16, 2023: After a few postponements of the case, it was heard before the MAAB. Kate and Rachel both provided testimony in opposition, as did BCIL. Rachel provided a full timeline of City communications with the applicants. A staff person from ISD was present to answer questions; he was

not himself involved in this project, but both the Commissioner and Deputy Commissioner who were involved had left their roles with the City by the time the application was finally submitted to MAAB. While the board regretted that a building permit had been issued at all, they unanimously denied the variance request, requiring that the building be brought into full compliance. Kate said that it would have set a really bad precedent if this variance had been granted.

- The current Manager of Building Inspectors at ISD has been a terrific partner in working with Kate and Rachel on accessibility issues that come up in permit applications and construction. ISD has a new Commissioner and has filled the Access Analyst role and is being very proactive about learning from this case to inform future workflows.
- When it was noted that no members of the public had joined the CCPD meeting Keisha asked how people find out about meetings. Kate responded that all City public meetings are posted online a minimum of 48 hours in advance and said CCPD staff need to improve community outreach and do better in spreading the word about our meetings. Keisha will follow-up with Kate and Rachel on ideas for this.

Meeting adjourned at 6:26 PM
Respectfully submitted,
Kate Thurman



CAMBRIDGE
DEPARTMENT
OF PUBLIC
THE WORKS

Five Year **Sidewalk and Street** Reconstruction Plan

May 2023

5 YEAR PLAN | TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	Complete Streets Bicycle Ordinance Vision Zero 2-4
PRIORITIES	Constraints High Priority Areas Sidewalk Conditions Pavement Conditions Equity Transit 5-12
5 YEAR PLAN	Scope of Work Completed Streets Planned Construction Funding 13-16
PROGRAMS	Sewer Separation & Stormwater Street & Sidewalk Miscellaneous Sidewalk Climate Change Healthy Forest - Healthy City 17-25
DESIGN/SCOPE	Pedestrian Ramps Pedestrian Access Sidewalk Materials Bicycle Facilities Transit New Construction Street Trees Green Infrastructure Traffic Signals 26-36
CONSTRUCTION	Pedestrian Access Bicycle Access Transit 37-39
NEXT STEPS	Conclusion 40



INTRODUCTION | COMPLETE STREETS

Complete Streets are **streets for everyone**. They are designed and operated to enable **safe access for all users**. Pedestrians, bicyclists, motorists, and public transportation (transit) users of all ages and abilities are able to safely move along and across a Complete Street. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They help buses run on time and make it safe for people to walk to and from train stations.

More sidewalks and bicycle facilities are included in Complete Streets, which provide **increased accessibility for pedestrians and cyclists**.

During design and construction of Complete Streets, the City's goal is to communicate projects with neighborhoods, facilitate an integrated design process, minimize disruption to community life, and provide reasonable access for all users during reconstruction.

INTRODUCTION | BICYCLE ORDINANCE

In 2019, the Cambridge City Council passed a **Cycling Safety Ordinance** to support the City's commitment to Vision Zero and the construction of a connected network of permanent separated bicycle lanes across the City. The 2020 amendments to the Ordinance aim to **increase the rate that protected bike lanes are created in the City** by adding ambitious requirements for the installation of approximately 25 miles of separated bike lanes within the next six to eight years.

Under the Ordinance, whenever improvements are made under the City's Five Year Sidewalk and Street Reconstruction Plan, **the improvements shall be consistent with the Cambridge Bicycle Plan**. If improvements are made to a segment of the separated bicycle network, a permanent separated bicycle lane shall be installed along that segment.

Improvements do not include routine maintenance, repairs, restriping of the road surface, or emergency repairs to the surface of the roadway.

www.cambridgema.gov/streetsandtransportation/policiesordinancesandplans/cyclingsafetyordinance



INTRODUCTION | VISION ZERO

On March 21, 2016, the Cambridge City Council unanimously passed resolutions put forth by the City Manager to formally adopt Complete Streets and Vision Zero policies, showing that the City is committed to achieving these goals, assuring safe access for all users.



Vision Zero calls for the elimination of fatalities and serious injuries resulting from traffic crashes, and emphasizes that they can and should be prevented. The City of Cambridge is the 17th city in the U.S. to commit to a Vision Zero policy.

<https://www.cambridgema.gov/streetsandtransportation/policiesordinancesandplans/visionzero>



PRIORITIES | CONSTRAINTS

Projects are constrained when:

- Budget predictions are uncertain.
- Sewer separation/storm water management project schedules are uncertain.
- Future street condition assessments change.
- Utility failure, repair, or replacement is not considered.
- Severe winter conditions lead to higher-than-expected levels of deterioration on streets.



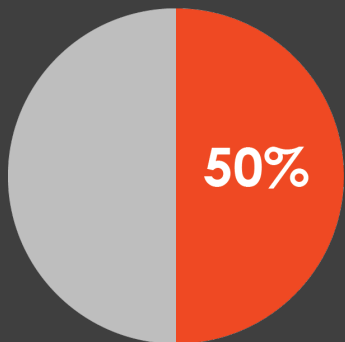
The Department of Public Works (DPW) will review the Five Year Plan on an annual basis. The variables and constraints are significant, and thus the annual revisions may need to reflect these uncertainties.

PRIORITIES | HIGH PRIORITY AREAS

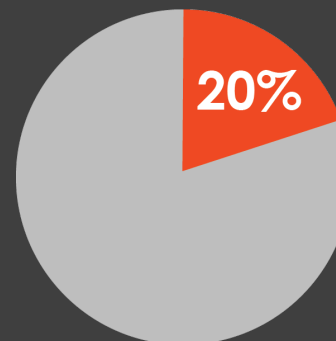


Reconstruct sidewalks and streets in poor condition in **High Priority Areas**:

- Areas within a 150-foot buffer of parks, major squares, libraries, schools, youth centers, senior housing, and senior centers.
- Areas within a 40-foot buffer of bus routes.
- Major thoroughfares to maintain the structural integrity of streets under heavy traffic.
- Streets on Cambridge Bicycle Plan's Bicycle Network Vision.
- Priorities identified by the Commission for Persons with Disabilities.



Just over 50% of City sidewalks and streets are located outside High Priority Areas. These corridors serve residential connections and need to be maintained to the extent that funding allows.



Approximately 20% of street and sidewalk funding will be reserved for areas located outside High Priority Areas.

PRIORITIES | HIGH PRIORITY AREAS



Projects are evaluated in coordination with the **Cambridge Bicycle Plan** to identify streets with non-existent or inadequate bicycle facilities, particularly where reconstruction could improve route connectivity and continuity for cyclists. For more information, visit: www.cambridgema.gov/CDD/Transportation/bikesincambridge/bicyclenetworkplan

PRIORITIES | SIDEWALK CONDITIONS

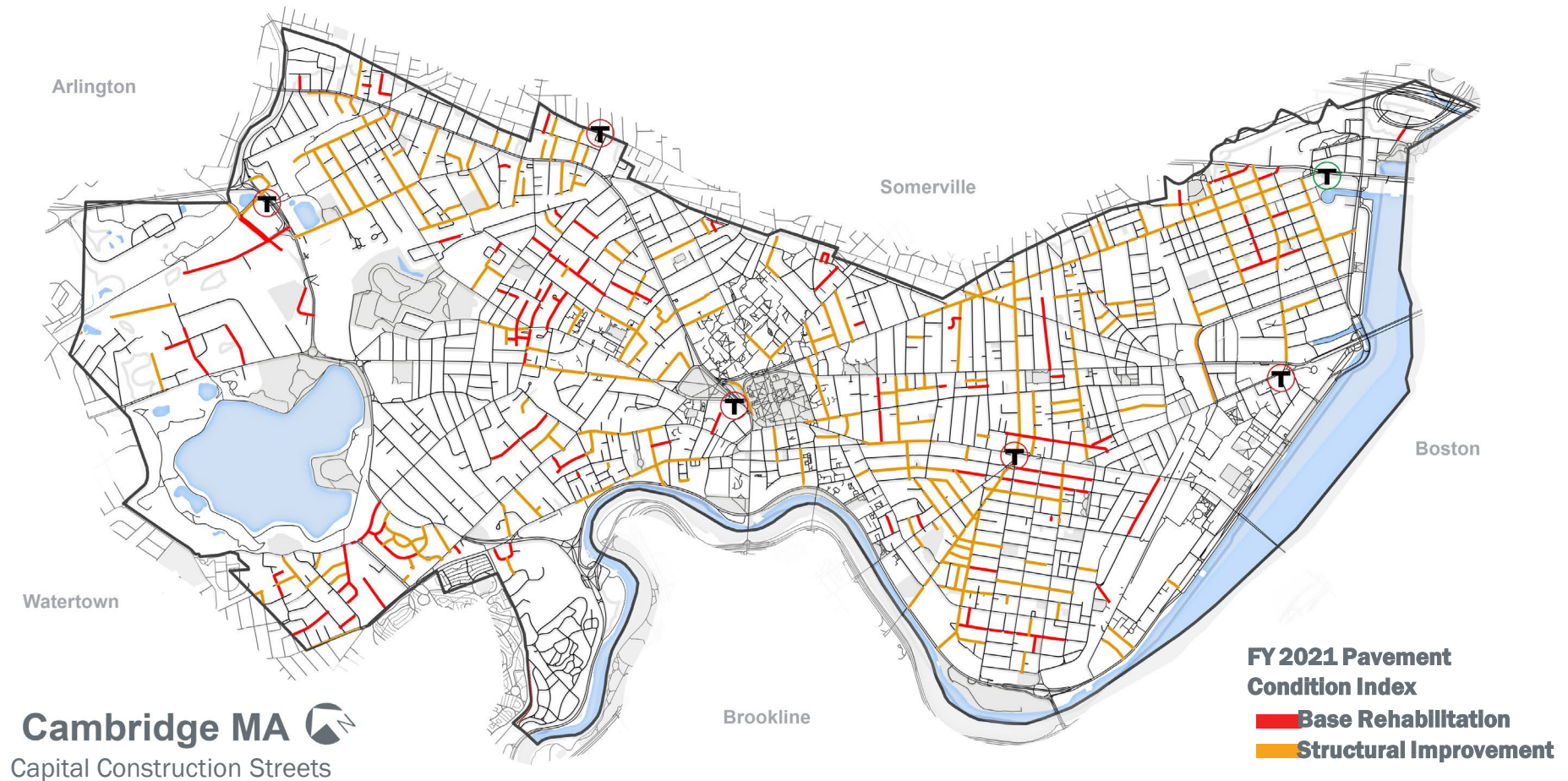


DPW is evaluating methods to perform an updated City-wide sidewalk condition rating

Each block of sidewalk received a rating between 0 (excellent) and 35 (poor) based on the following criteria:

- Driveway conditions
- Cross-slope
- Trees or other obstructions
- Overall structural condition

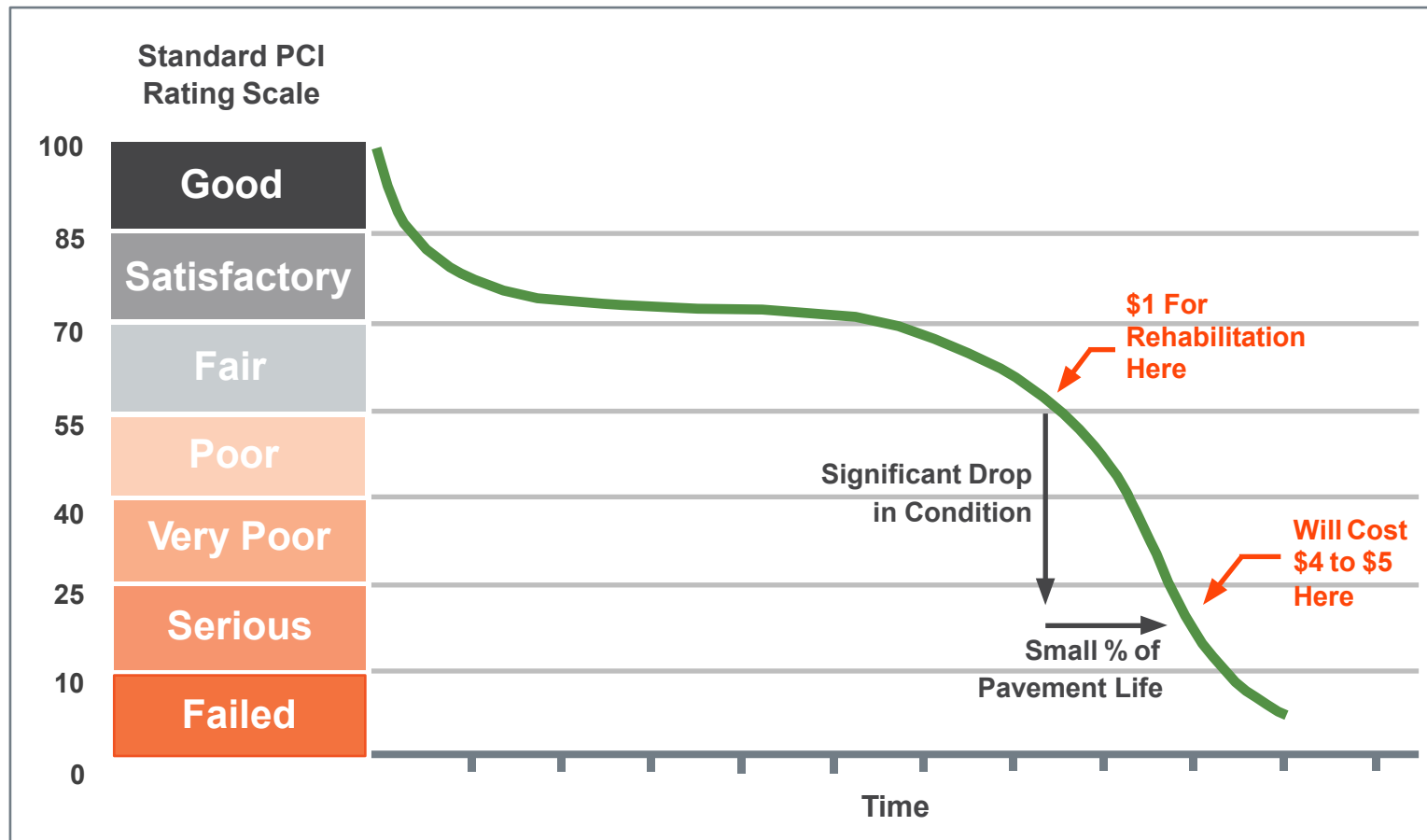
PRIORITIES | PAVEMENT CONDITIONS



DPW is evaluating methods to perform an updated pavement condition rating

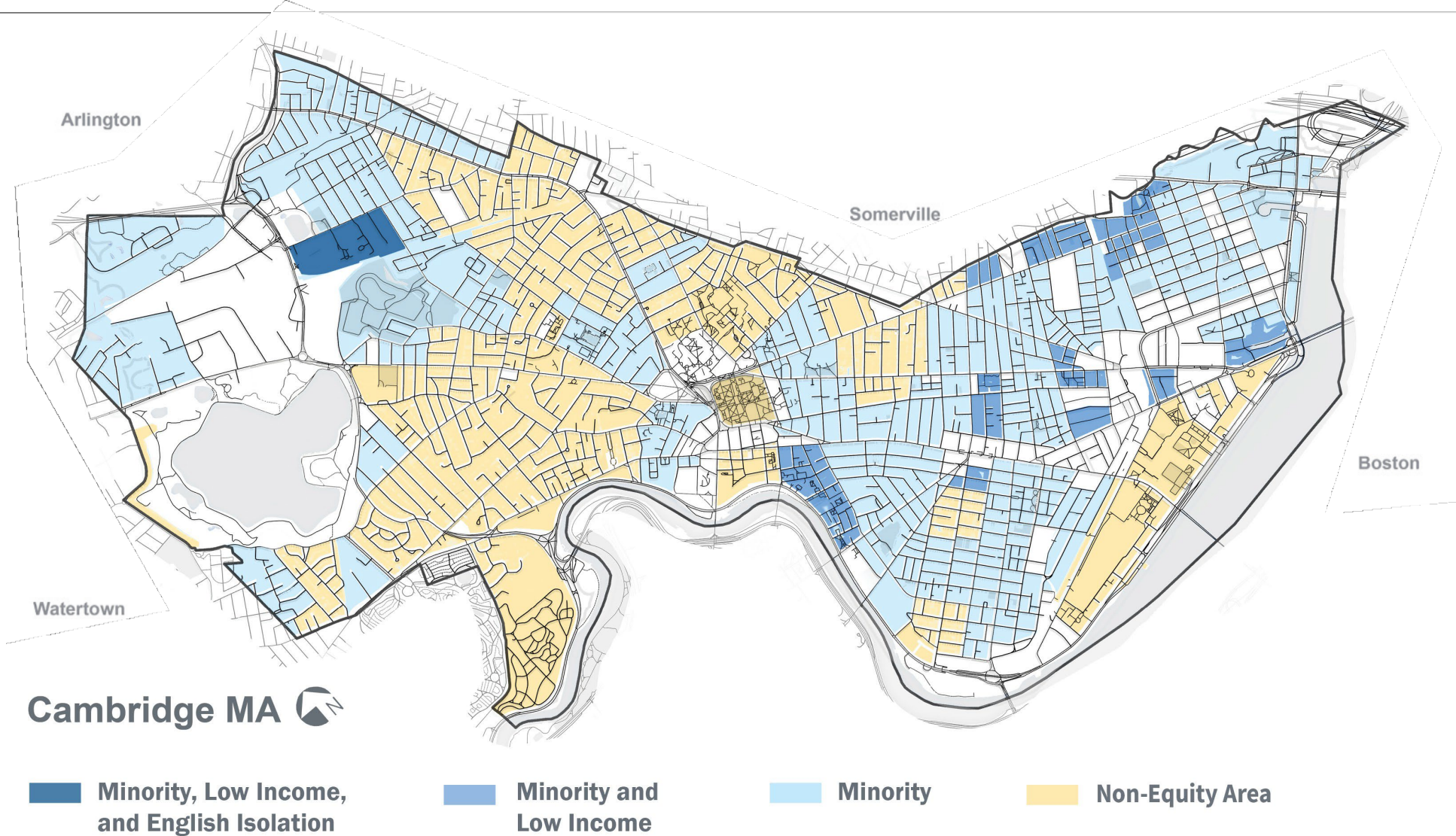
New street condition assessments are completed every three years and the plan is updated accordingly.

PRIORITIES | PAVEMENT CONDITIONS



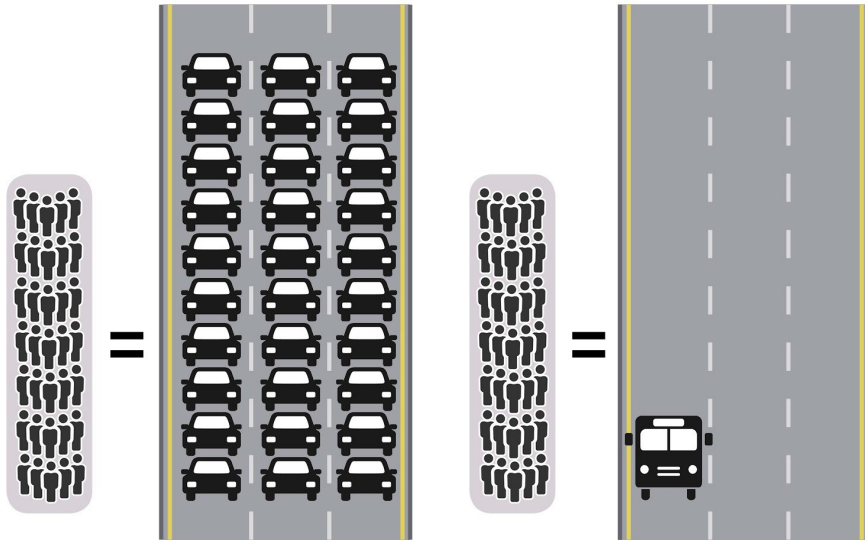
Based on the Pavement Condition Index (PCI), the City's average rating is 66.2. The average is holding steady year to year. A combination of capital construction and maintenance have resulted in a decrease of \$2.4 million in the backlog of repairs.

PRIORITIES | EQUITY



The Five Year Plan considers many factors beyond condition, including ensuring that infrastructure in neighborhoods across the City is equitably maintained.

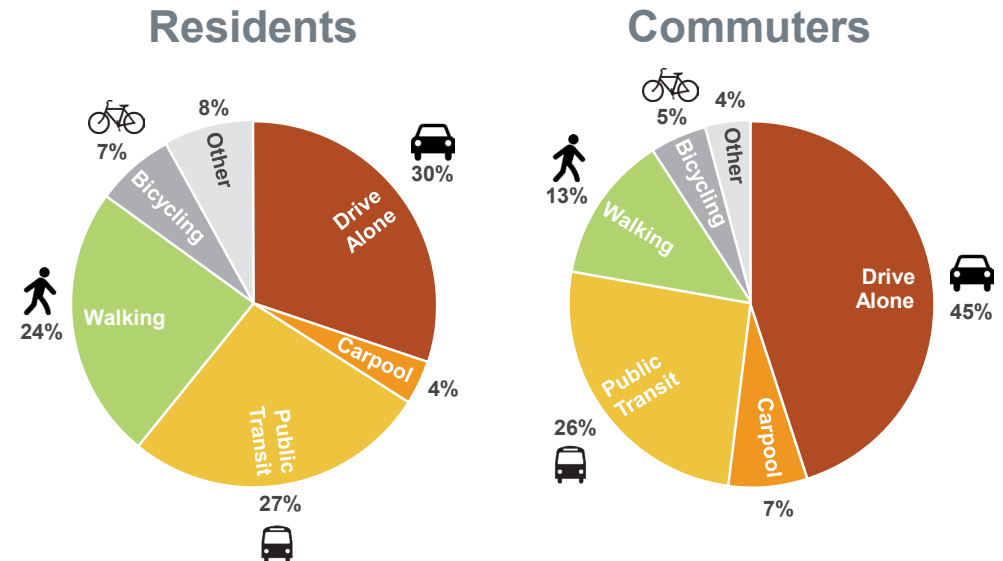
PRIORITIES | TRANSIT



The graphics above illustrate the same number of people in cars versus in a bus.



Cambridge Commuting: Getting Around



Benefits of good transit access:

- A sustainable and efficient mode of transportation that moves people safely compared to driving in private automobiles.
- In some cases, more people on the road may be on buses than in private cars.
- Dense economic and commercial centers thrive (e.g., Kendall Square).

5 YEAR PLAN | SCOPE OF WORK

Our approach emphasizes **streets designed and operated for everyone**. The following elements allow pedestrians, bicyclists, motorists, and transit users of all ages and abilities to safely move along and across **Complete Streets**.



Accessibility: Ensure pedestrian ramps and sidewalks are accessible for all, and implement universal design



Vision Zero: Eliminate fatalities and serious injuries resulting from traffic crashes



Transit: Provide accessibility of bus stops and prioritization of transit



Bicycle network: Support people of all ages and abilities to bike safely throughout the City

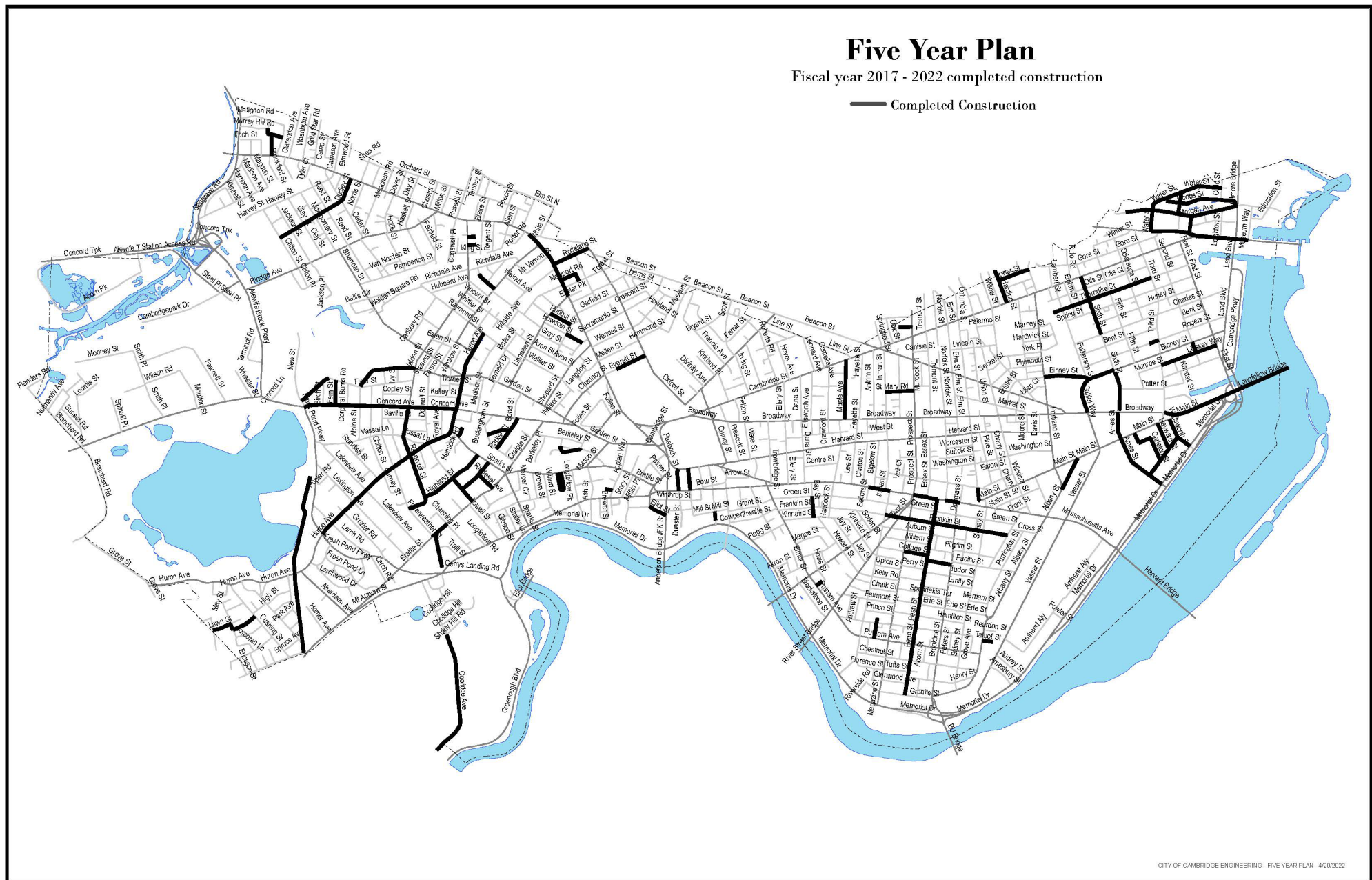


Street trees & green infrastructure: Reduce urban heat island and improve water quality

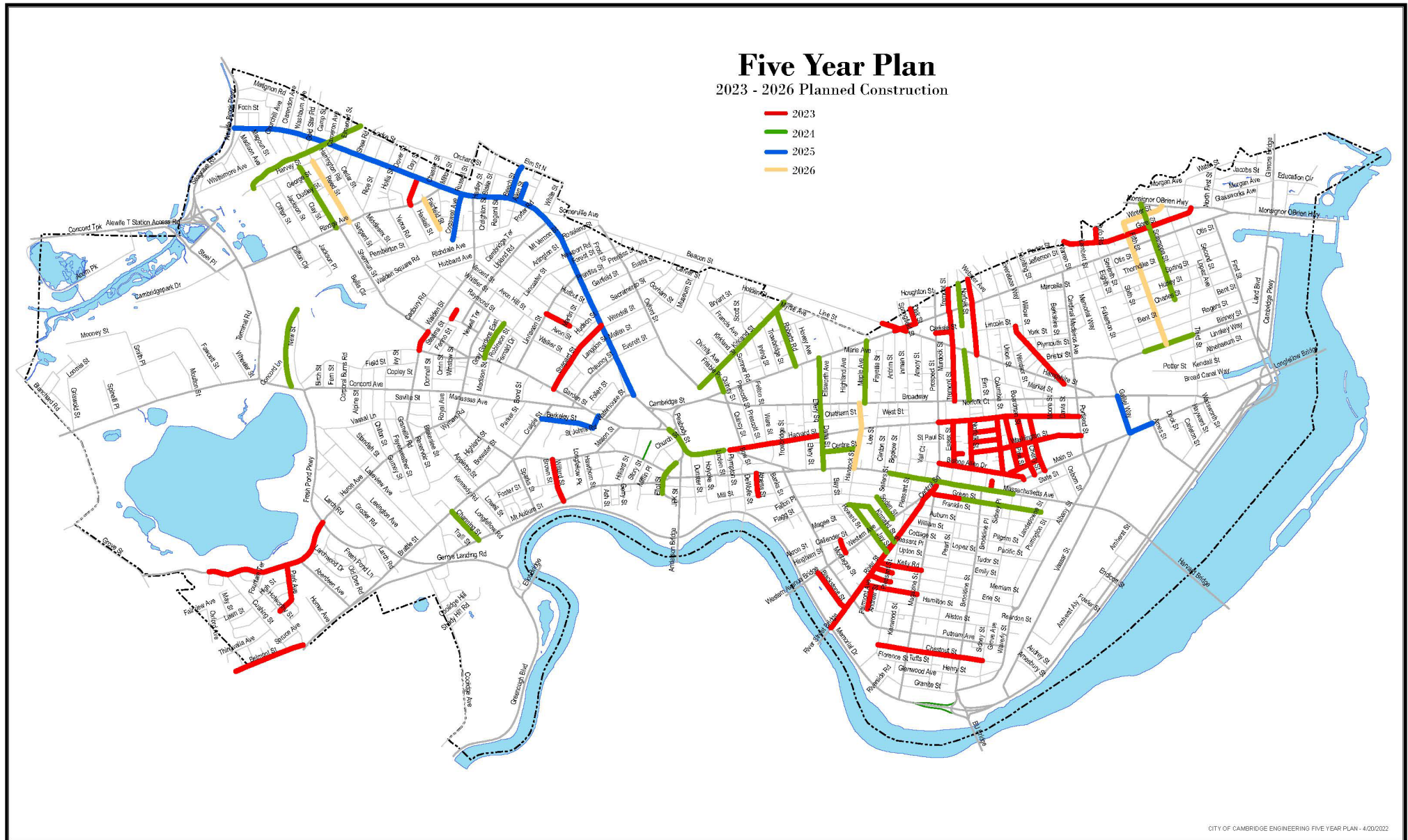


Infrastructure: Maintain and improve City infrastructure; coordinate with private utilities to facilitate upgrades

5 YEAR PLAN | COMPLETED STREETS



5 YEAR PLAN | PLANNED CONSTRUCTION



5 YEAR PLAN | FUNDING

Each year, approximately **\$13.5 million** is spent on the Complete Streets Program:

- \$2.5 million comes from the State (Chapter 90)
- \$6 million comes from the City budget
- \$5 million per year starting in 2022 to further implementation of separated bike lanes

Due to more demand than **funding** or **ability to construct**, the City must identify streets:

- In high priority locations that benefit the most people
- That have overlapping needs/benefits
- That prioritize accessibility, active transportation, and safety
- That maintain infrastructure

In addition to the Complete Streets funding summarized above, the City allocated **\$294 million** for the following projects in this year's plan:

- \$45 million for Central Square improvements
- \$11 million for Inman Square improvements
- \$70 million for Kirkland Street improvements
- \$80 million for The Port improvements
- \$88 million for River Street reconstruction



PROGRAMS | SEWER SEPARATION & STORMWATER

The City has an ongoing Five Year Capital Program for sewer separation, stormwater management and infrastructure renewal. The City is committed to **restoring** and **enhancing streets, sidewalks, and bicycle facilities** as an integral part of the Capital Program. These projects are subject to change in the schedule due to financial, legal, environmental, and level of service considerations.



PROGRAMS | SEWER SEPARATION & STORMWATER

Twenty-five years of major investment in sewer and stormwater infrastructure and maintenance has had a **significant, positive impact on improving the water quality** of discharges to receiving waters.

The amount of Combined Sewer Overflows to the Charles River and Alewife Brook have **significantly decreased** over the past two decades: Charles River by 98%, Alewife Brook by 85%. In the Lower Charles, **water quality has improved from a grade of D to a B**. This is a significant accomplishment, but the work is not done to reach the goal of a swimmable Charles River.



Investment in infrastructure over a long period of time provides a more reliable system that better serves residents, who experience fewer backups, reduced flooding, and fewer emergency repairs.

To view the Ten Year Sewer and Drain Infrastructure Plan, visit: www.cambridgema.gov/theworks/tenyearplan

PROGRAMS | SEWER SEPARATION & STORMWATER

Since the 1800s, thousands of hours of engineering and hundreds of millions of dollars of construction have been allocated to realize a more efficient and environmentally friendly system.



- Sewer separation continues today, and the City's collection system currently includes approximately 113 miles of sanitary sewer, 99 miles of stormwater drains, and 40 miles of combined sewer.
- Approximately 55% of the collection system owned and maintained by Cambridge has been separated — much work remains.
- Over 270 illicit connections have been removed, reducing this sewage going untreated to the river.
- Projects involve intense construction and typically include rebuilding roadways and sidewalks.

PROGRAMS | STREET & SIDEWALK

Street and sidewalk construction projects generally include:

- Paving
- Sidewalk and pedestrian ramps
- Traffic calming
- Street trees
- Stormwater management and green infrastructure
- Bike and transit improvements

The City actively maintains and ensures safe, accessible City-owned street and sidewalks by:

- Conducting pothole repairs
- Paving streets through Miscellaneous Patch Contract
- Removing sidewalk obstructions, such as botanical, bicycle, signs, etc.
- Enforcing snow and ice removal

TOOLBOX DESIGN ELEMENTS

STREET & SIDEWALK RECONSTRUCTION



Raised Crosswalks
[at side streets]



Flexi Pave
[at trees]



Curb Extensions & Ramps
[for accessibility]



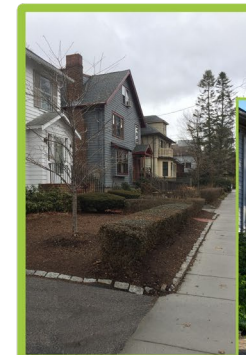
New Sidewalks
[brick & concrete]



Sidewalk Construction

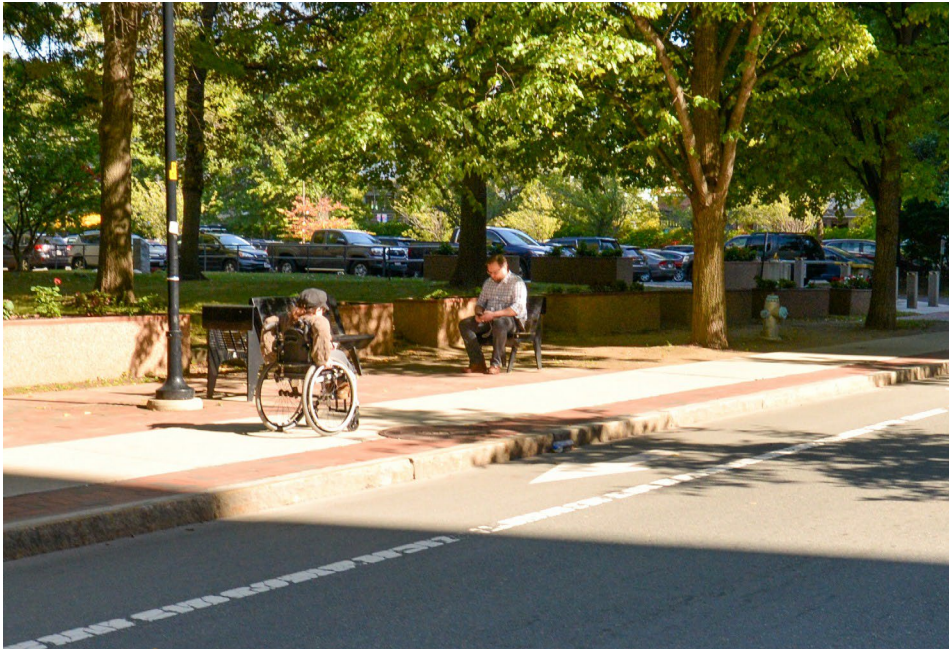


New Tree Plantings



PROGRAMS | MISCELLANEOUS SIDEWALK

- Budget: \$800,000 per year
- Program is used to address discrete sections of sidewalk throughout the City.
- Repairs typically a block in length, but can be as small as one panel.
- Priority given to sidewalks and curb cuts in High Priority Areas, and as identified by **Commission for Persons with Disabilities and the DPW**.
- The DPW makes smaller repairs throughout the year to maintain accessibility across the City.
- Portion of Miscellaneous Sidewalk Program funding reserved for **sidewalks and curb cuts** where access is of acute importance.
- If you know of a location that is a critical access issue and is not addressed in the Five Year Plan, please contact the Commission.



Cambridge Commission for Persons with Disabilities

Rachel Tanenhaus, Executive Director
Kate Thurman, Disability Project Coordinator
51 Inman Street, Second Floor
Cambridge, MA 02139

ccpd@cambridgema.gov

Voice: 617-349-4692 / TTY: 617-492-0235

Fax: 617-349-4766

www.cambridgema.gov/disabilities

PROGRAMS | CLIMATE CHANGE

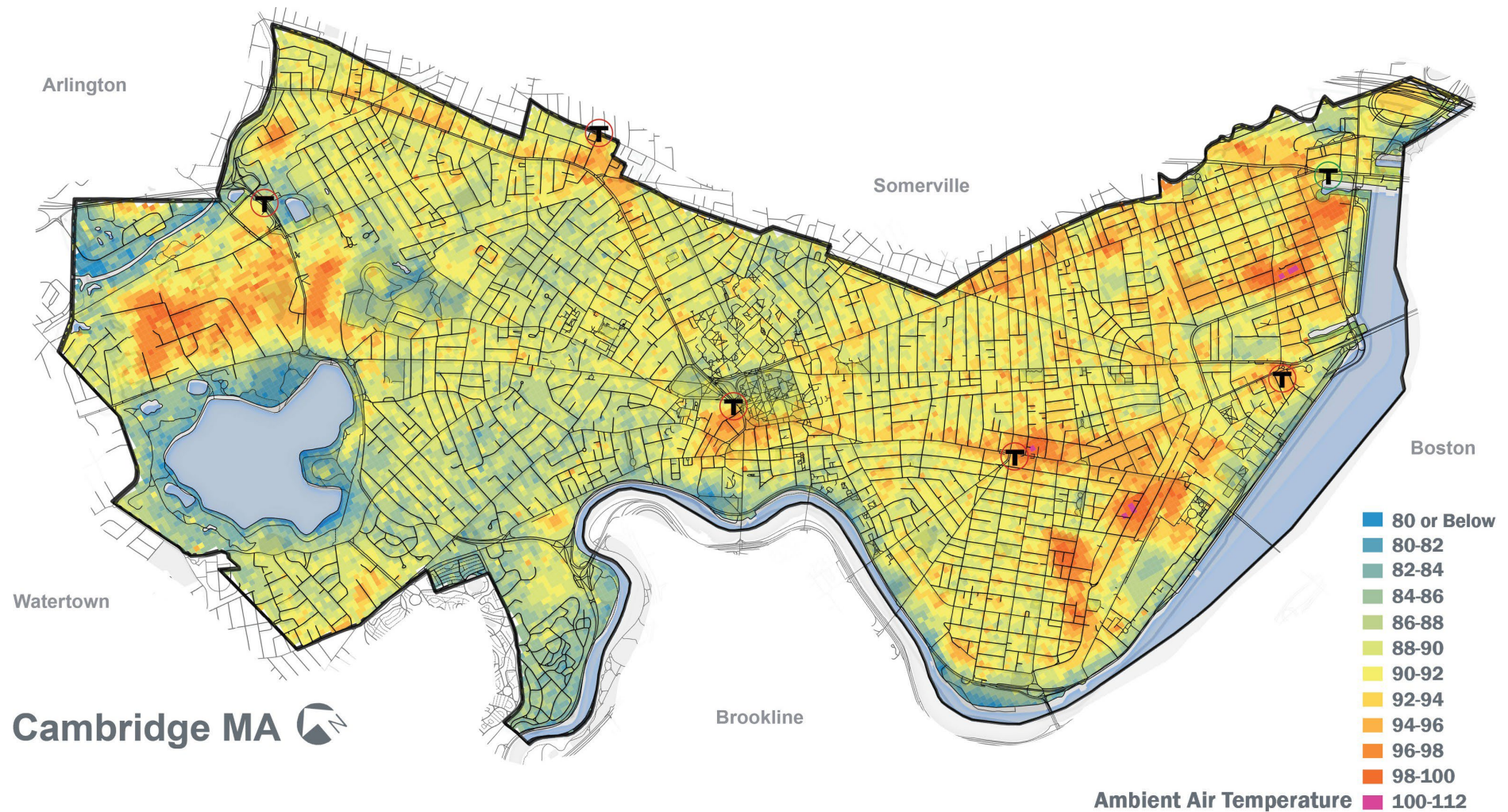
Our climate is changing, bringing more severe storms, more extreme floods, and more intense heat waves. Through projects in the Five Year Plan, we have opportunities to implement resiliency strategies, ranging from green infrastructure to improved drainage to additional tree plantings.



*Courtesy photo:
Chicago Heat
Wave of 1995*



PROGRAMS | CLIMATE CHANGE



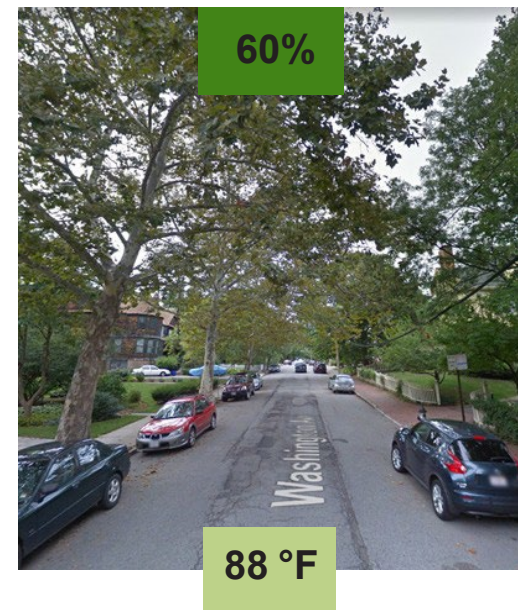
The Urban Heat Index (UHI) shows the “feels-like” temperature based on a 90-degree day with 46% humidity. Factors, such as increasing temperatures and tree canopy loss, are increasing the “feels-like” temperature over time. Young children and older residents are most at risk of heat-related illness.

For more information, visit: www.cambridgema.gov/CDD/Projects/Climate/climatechangeresilienceandadaptation

PROGRAMS | HEALTHY FOREST - HEALTHY CITY

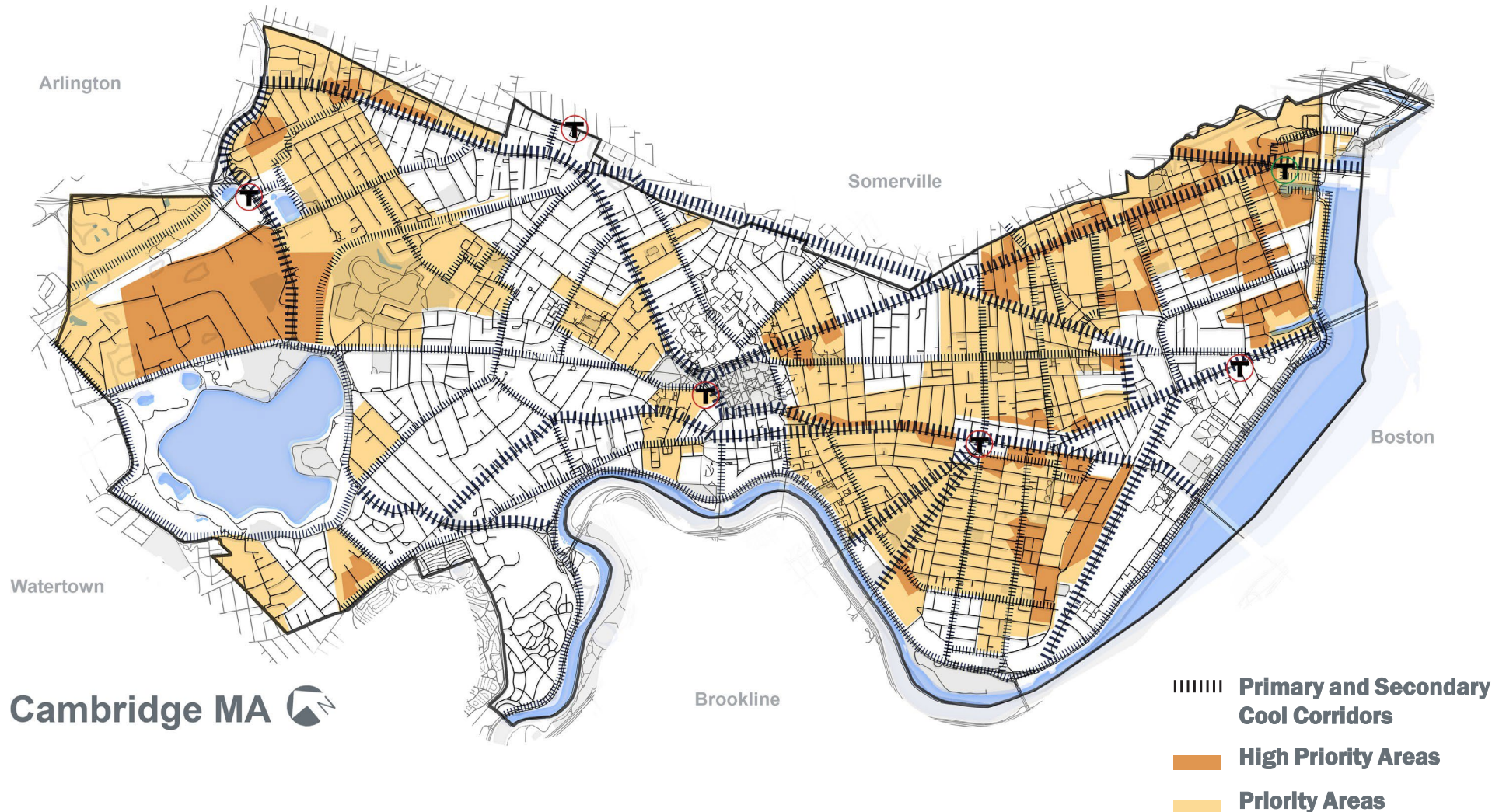
A healthy urban forest is a vital part of a healthy city. Trees - whether they are on streets and in parks, on private properties and campuses - help us lower sidewalk temperatures in the summer, reduce home cooling costs, improve air quality, and support a living ecosystem.

The City maintains over 19,000 trees and has developed an Urban Forest Master Plan to guide the development of the urban forest into the future. The goals are: increase canopy cover where lacking; enhance canopy cover in the public realm to create “cool corridors”; and incentivize each landowner to increase canopy cover.



The images above show the cooling impact on a 90-degree day relative to streetscape. As the tree canopy increases, the “feels like” temperature decreases. It is our common responsibility to plant and maintain trees every year to sustain our urban forest and foster a healthy city.

PROGRAMS | HEALTHY FOREST - HEALTHY CITY



The map shows the priority planting areas through the City on both public and private properties. The City is committed to increasing the tree canopy on streets and sidewalks through our construction projects.

DESIGN | PEDESTRIAN RAMPS



Pedestrian ramps are a critical element of the accessible sidewalk. The details of the design and construction have a significant impact on their usability.

- All new pedestrian ramps, including landing areas, will be concrete and include tactile warning strips.
- All slopes will meet ADA/AAB requirements.
- All new pedestrian ramps will be designed to:
 - Minimize ponding
 - Locate ramps as close to the intersection as possible

The best design for pedestrian crossings, particularly on narrow side streets, may be a modified raised crosswalk that:

- Allows pedestrians to cross the street without having to ramp down.
- Reduces the risk of ponding.
- Keeps the crossing more in line with the sidewalk.

DESIGN | PEDESTRIAN ACCESS



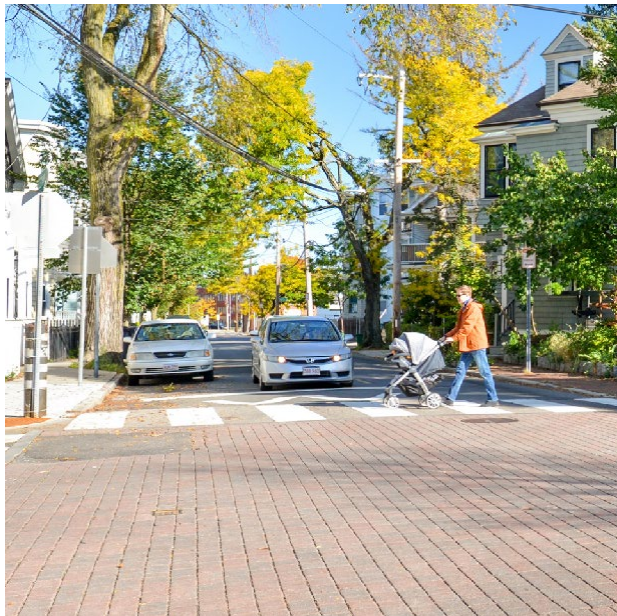
MID-BLOCK CROSSINGS

These are generally not used, unless the blocks are especially long or there is an especially large pedestrian flow.



4-WAY INTERSECTIONS

Unless site conditions warrant a different treatment, four crosswalks and eight pedestrian ramps should be provided.



'T' INTERSECTIONS

At least one crosswalk and two pedestrian ramps are required for accessible path of travel along the main corridor. Site conditions are considered to determine if crosswalks should be provided.

DESIGN | SIDEWALK MATERIALS



Concrete and wire-cut brick without beveled edges, placed on a smooth asphalt base, will be utilized as the sidewalk materials of choice throughout the City. Concrete is the material most frequently used in the city (~70%) and provides a relatively inexpensive, durable, and easy-to-maintain accessible sidewalk.

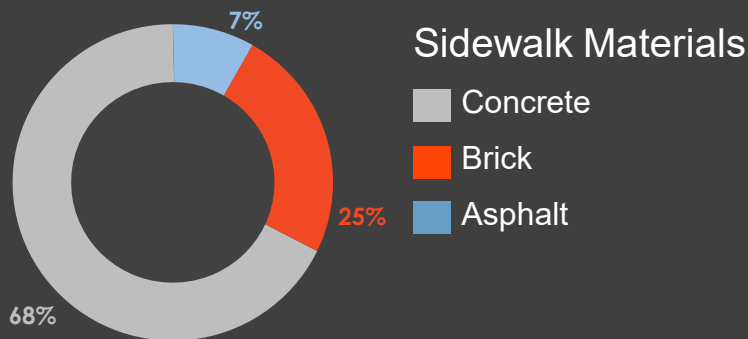
The City policy is to replace existing sidewalks with the same material at no cost to the property owner. However, during construction, property owners are contacted and may choose to change the sidewalk material. On larger projects, a more unified approach to sidewalk materials has been implemented as part of a community process.

Historic Districts

The DPW works collaboratively with the Historic Commission to ensure that sidewalk reconstruction work is appropriate and not incongruous to the district.

Standard Details

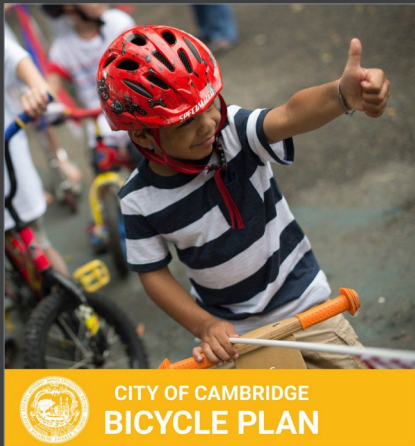
For more information, visit: www.cambridgema.gov/theworks/ourservices/engineering/Resources/standarddetails



DESIGN | BICYCLE FACILITIES



Photo courtesy of
Nichol Figueiredo



Bicycle Facilities

Many sections of Cambridge are well served by bicycle-friendly infrastructure, but there are still significant gaps and areas in need of improvement. Improvements for bicycling are considered in all projects undertaken by the City.

The design of bicycle facilities will be guided by the **Cycling Safety Ordinance** and the **Bicycle Plan**. The fundamental guiding principle for this Plan is to enable people of all ages and abilities to bicycle safely and comfortably throughout the City.

DESIGN | TRANSIT

Transit considerations include:

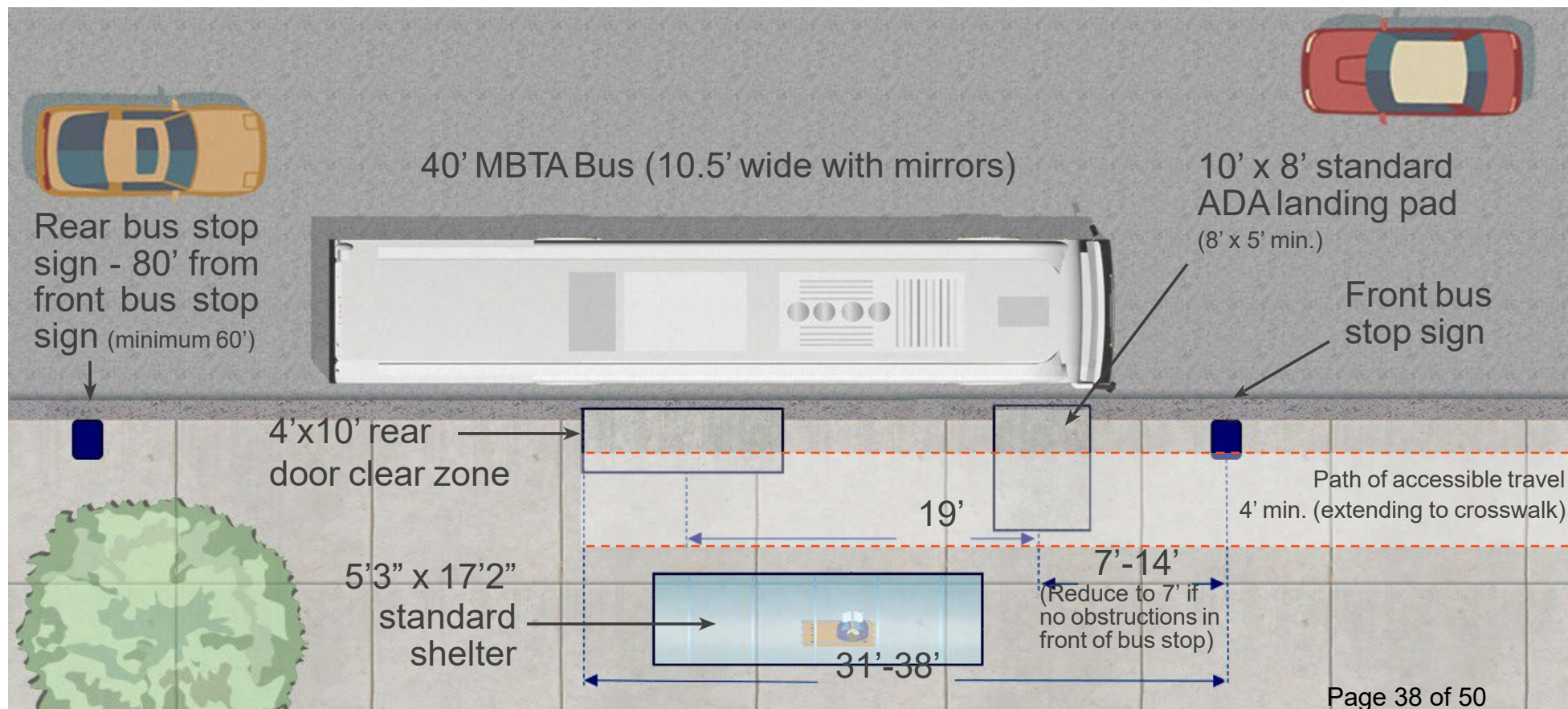
Priority

The City performed a bus delay and reliability assessment to explore options for transit priority (e.g., dedicated lanes) in roadway projects where there are expected benefits.

<https://www.cambridgema.gov/CDD/Transportation/regionalplanning/masstransit/buspriority>

Accessibility

The City developed a bus stop standard to ensure accessibility and also provide amenities when appropriate.

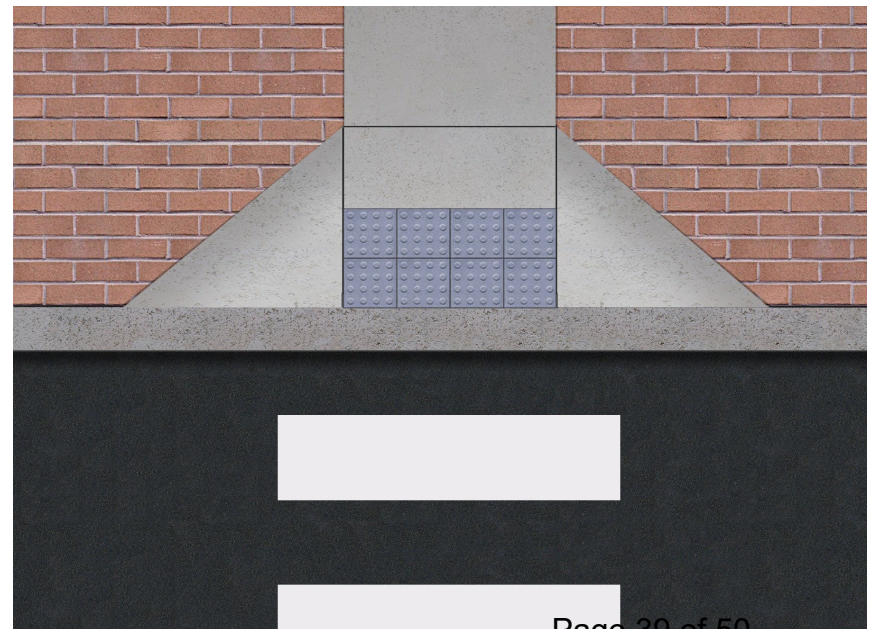


SCOPE | NEW CONSTRUCTION

City Projects

Below are the requirements specific to all City construction projects in the public Right-of-Way. The goals of these requirements are to meet state and federal regulations, maximize **accessibility improvements**, and minimize the extent to which work has to be reconstructed in the future.

- New sidewalks (concrete or brick) will **meet ADA/AAB requirements**.
- Roadway paving that abuts pedestrian ramps will include the **reconstruction of abutting non-compliant pedestrian ramps**.
- **15 Foot Rule:** To minimize the need for non-compliant transition segments between old and new sidewalks, if a compliant segment within 15 feet of the end of proposed new work is identified, work will be extended to the compliant segment.
- If a significant portion of sidewalk on a given side of a block is reconstructed, the **entire sidewalk on that side should be compliant**.



SCOPE | NEW CONSTRUCTION

Private Utilities

Below are the requirements specific to all street and sidewalk reconstruction projects constructed by private utilities within the City public Right-of-Way.



- Sidewalk construction subsequent to utility work will meet ADA/AAB requirements.
- Roadway paving (subsequent to utility work) that abuts pedestrian ramps, will include the reconstruction of abutting non-compliant pedestrian ramps.
- If a full block of sidewalk is being reconstructed, due to utility work, a Professional Engineer must submit a stamped design prior to construction, and a certification of compliance after construction is complete.
- If more than 30 feet of contiguous sidewalk, a curb cut, or a driveway is being constructed due to utility work, a survey and design will generally be required. Survey and design requirements will be determined by the DPW based on the specific location.
- In lieu of final restoration, payments made by utility companies (Street Preservation Offset Fees) will include the complete cost of necessary sidewalk restoration.

SCOPE | NEW CONSTRUCTION



Private Entities

Requirements specific to street and sidewalk reconstruction projects constructed by private entities within the City of Cambridge public Right-of-Way will adhere to the same requirements as City projects in addition to the below requirements:

- If a full block of sidewalk is being reconstructed, a Professional Engineer must submit a stamped design prior to construction and a certification of compliance after construction is complete.
- If more than 30 feet of sidewalk, a curb cut, or a driveway is being constructed, a survey and design will generally be required. Survey and design requirements will be determined by the DPW based on the specific location.

SCOPE | STREET TREES

Existing Street Trees

Existing street trees will be protected during construction and the sidewalks will be carefully evaluated to ensure adequate accessible routes through the neighborhood.

New Tree Plantings

The City Arborist will review each street and sidewalk project to determine tree planting opportunities, with a goal of 20-foot spacing, evaluating the location of overhead and underground utilities, proximity to intersections, site lines, building setbacks, locations of entrances, etc.

- On **narrow sidewalks** (less than 8 feet wide), a minimum of 4 feet of sidewalk width will be retained adjacent to new trees.
- On **wider sidewalks** (8 feet wide or greater), a minimum of half of the overall sidewalk width will be retained for pedestrians.

Back of Sidewalk Trees

The Arborist will work with residents interested in back of sidewalk tree plantings.



Goals

- **Protect existing** street trees during construction.
- Increase the number of street trees while maintaining **accessible sidewalks**.

SCOPE | GREEN INFRASTRUCTURE

Stormwater discharges are contributing to at least 55% of impairments to Massachusetts' assessed waters. The goal is to **improve the water quality** of stormwater before discharging to outfalls at the Alewife Brook and Charles River.

The City is incorporating green infrastructure on projects, as conditions and space allow.



Installation of site infiltration system at Longfellow Park.

Types of Improvements

- Porous asphalt
- Infiltrating catch basins
- Rain gardens/bio basins
- Site infiltration

Siting Evaluation

- Soil conditions
- Groundwater
- Space constraints
- Maintenance

SCOPE | TRAFFIC SIGNALS

Accessible Pedestrian Signals (APS)

APS works in conjunction with visual pedestrian signals to provide additional information to pedestrians, including pedestrians who are blind or visually impaired. APS typically uses a combination of auditory and vibrotactile information to alert pedestrians as to when they should cross the street.

The City is implementing APS at new and existing signalized intersections. The Traffic Department consults with the Commission for Persons with Disabilities to prioritize location.

Signal Control Cabinets

Traffic signal control cabinets mounted on poles do not meet accessibility requirements as they are not detectable to pedestrians who are blind or visually impaired. In coordination with construction projects and in High Priority Areas, control cabinets are moved to ground mounted locations.



CONSTRUCTION | PEDESTRIAN ACCESS



Where pedestrian routes are closed, alternate pedestrian routes shall be provided.



The Manual on Uniform Traffic Control Devices (MUTCD), published by the U.S. Department of Transportation/Federal Highway Administration, includes specific requirements for pedestrian access in work zones.

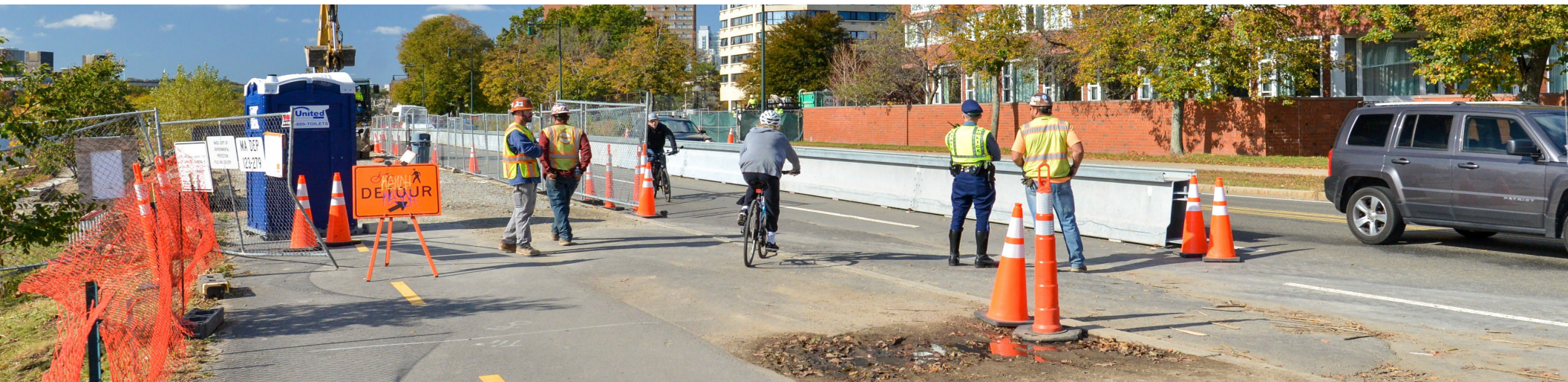


Whenever possible, work should be done in a manner that does not create a need to detour pedestrians from existing routes or crossings.

CONSTRUCTION | BICYCLE ACCESS

Construction sites must:

- Maintain bicycle access through construction sites at all times. Where maintaining bike lanes is not possible:
 - Ensure adequate space for bicycles in travel lane.
 - Post “*Bicycles May Use Full Lane*” signs.
- Place all road signs outside the bicycle lanes.
- Use asphalt as a temporary surface.
- Place asphalt around edges for a smooth and uniform transition.
- Provide advance notice and smooth transition when steel plates are required.
- Spray paint the edges pink and post caution signs where raised castings are exposed.



For the City of Cambridge Bicycle Accommodation During Construction Guidelines, visit:
www.cambridgema.gov/theworks/ourservices/engineering/Resources/contractorresources

CONSTRUCTION | TRANSIT




Communicate closely with the Massachusetts Bay Transportation Authority (MBTA) on any impact (diversions) to transit routes.

- Hold monthly interdepartmental meetings with the MBTA.
- Coordinate with the DPW and MBTA service planning staff as needed.

During construction, routes and stops may be moved.

- Communicate relocated bus stops to the public via notices and signage.
- Ensure accessibility at temporary stops.

NEXT STEPS | CONCLUSION



The Five Year Plan is a living document that will be updated regularly. As part of that process, the DPW will:

- Review the plan annually with the Commission for Persons with Disabilities and Pedestrian, Bicycle, and Transit Committees.
- Update the pavement condition and sidewalk condition data and corresponding maps.
- Annually update the Five Year Plan to account for the changing conditions of our streets and sidewalks.



Send questions or comments to:
James Wilcox
City Engineer
Department of Public Works
jwilcox@cambridgema.gov
617-349-6426



For more information:

City of Cambridge
Department of Public Works
147 Hampshire Street
Cambridge, MA 02139
617-349-4800

www.cambridgema.gov/theworks/fiveyearplan

Photos & Graphics by Kleinfelder

